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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,387	04/11/2002	Moshe Brody	4075/OK306	3272

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Patent Department
Macrovision Corporation
2830 De La Cruze Boulevard
Santa Clara, CA 95050

EXAMINER

DAVIS, ZACHARY A

ART UNIT	PAPER NUMBER
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2437

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06/30/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/069,387	Applicant(s) BRODY ET AL.	
	Examiner Zachary A. Davis	Art Unit 2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 April 2009 has been entered.
2. By the above submission, Claims 1, 7-9, 12, and 13 have been amended. No claims have been added or canceled. Claims 1-9, 12, and 13 are currently pending in the present application.

Response to Arguments

3. Applicant's arguments filed 27 April 2009 have been fully considered but they are not persuasive.

Regarding the rejection of Claims 7-9 and 13 under 35 U.S.C. 101 as directed to non-statutory subject matter, Applicant again asserts that the claims are statutory, and Applicant's arguments in support thereof are largely directed to the language of a "non-standard codeword" (see pages 6-7 of the present response). It is noted that the "non-

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standard codeword” language has been deleted from the claim by the present amendment and therefore is not germane to the discussion of whether the present claims are directed to statutory subject matter. It is further noted that Applicant states that the present specification refers to the “Red Book” standard and also to “several other publications and standards” (page 7 of the present response), which does not clarify the issue of what the “non-standard codeword” would refer to, since it is not clear to which standard or standards the non-compliance of the codeword would be intended to refer; again, however, it is noted that this is moot because the claims no longer recite the “non-standard codeword” terminology.

Applicant further refers to the decision in *In re Bilski*, 88 USPQ2n 1385 (Fed. Cir. 2008), stating that the “decision holds that a claimed process [must] either (1) be tied to a particular machine or apparatus or (2) transform a particular article into a different state or thing” in order to be statutory, i.e. eligible for patenting under 35 U.S.C. 101 (pages 7-8 of the present response). The Examiner does not dispute this statement; however, the Examiner further notes that it is not relevant to the question of whether Claims 7-9 and 13 are directed to statutory subject matter, because the claims are directed to compact discs (i.e. articles of manufacture), and not to methods (i.e. processes). The decision in *Bilski* only concerned the patent eligibility of processes.

Additionally, the Examiner maintains that the claimed compact discs are only directed to arrangements of data and therefore only recite nonfunctional descriptive material stored on the compact disc. Although some compact discs do include pits and lands that encode the data, as Applicant asserts (page 7 of the present response), other

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compact discs (for example, recordable and rewritable discs) do not use physical pits and lands for data encoding. Further, although Applicant asserts that the pits and lands form a part of the structure of the disc and do not constitute merely an arrangement of data (page 7 of the present response), Applicant provides no evidence or explanation in support of this statement. The Examiner again asserts that the claimed data and parity symbols within error correction codewords are only an arrangement of data; they are not computer programs or data structures as defined in MPEP § 2106.01, but are only a particular arrangement of the claimed codewords and symbols, and are therefore nonfunctional in and of themselves. “When nonfunctional descriptive material is recorded on some computer-readable medium... it is not statutory since no requisite functionality is present.... Merely claiming nonfunctional descriptive material, i.e. abstract ideas, stored on a computer-readable medium... does not make it statutory” (see MPEP § 2106.01). Therefore, the claimed discs are non-statutory subject matter because no structure is claimed, only particular arrangements of data on the disc.

Regarding the objection to the specification for failure to provide proper antecedent basis for the claimed subject matter and the rejection of Claims 1-9, 12, and 13 under 35 U.S.C. 112, first paragraph, for failure to comply with the written description requirement, Applicant asserts that support for the phrase “at the time of mastering” is found in Figure 19 “and description thereof” (page 8 of the present response). However, the Examiner notes that there is no explicit mention of a process or step of mastering in the cited portion (where the Examiner assumes that Applicant intended to refer to the description of Figure 19 at page 33, line 9-page 34, line 10 of the present

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specification) and Applicant has not specifically pointed out or clearly explained what is considered to provide written description support for the limitation “at the time of mastering”. Applicant also states that “all the steps described in the specification are performed as part of the mastering process” (page 8 of the present response) but provides no evidence in support of this assertion.

Applicant further asserts that there is support in the specification for the phrase “at least one uncorrectable erroneous data symbol”, and cites a portion of the specification describing disabling error correction for erroneous values (page 8 of the present response, apparently citing page 24, line 1-page 25, line 11 of the present specification). However, the Examiner notes that the objection and rejection referred to the limitation “at least one uncorrectable erroneous data symbol **produced when mastering the original disc**” (emphasis added, noting that the claim has since been amended but still recites “produced when mastering the copy-protected compact disc”), and it was the latter portion of the limitation that was the basis for the rejection. While the Examiner agrees that there is written description support for uncorrectable erroneous data symbols in general, there does not appear to be sufficient written description for producing such symbols at the time of “mastering the original disc”.

Regarding the rejection of Claims 1-9, 12, and 13 under 35 U.S.C. 102(b) as anticipated by Siquin et al, US Patent 6425098, and with specific reference to independent Claim 1, Applicant argues that Siquin does not disclose disabling error correction but instead enables error correction to generate new error correcting codes (pages 9-10 of the present response citing Siquin, column 11, lines 20-33). Applicant

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then states that “Sinquin categorically does not change the CIRC values” (page 10 of the present response). These two arguments contradict each other; Applicant first states that new error correcting codes (i.e. CIRC values) are generated but then states that the values are not changed. Further, the Examiner submits that Sinquin does disclose disabling the error correction of the codewords associated with the data symbols by altering parity symbols, rendering the erroneous data symbols uncorrectable, as recited in Claim 1, because Sinquin explicitly states that the change in the error correction codes (i.e. alteration of parity symbols) renders the erroneous symbols uncorrectable (see, for example, column 11, lines 28-33, where erroneous values are not flagged as erroneous and not corrected because of the changed parity symbols). Applicant further asserts that Sinquin teaches away from the present invention (page 10 of the present response); however, Applicant provides no explanation of this assertion, and further, because the rejection was an anticipation rejection and not an obviousness rejection, the question of teaching away is moot.

With reference to independent Claim 7, Applicant does not provide any separate arguments but does state that the claim includes a compact disc “encoded at the time of mastering with at least one non-standard codeword, which comprises, *inter alia*, ‘at least one uncorrectable erroneous parity symbol produced when mastering the original disc’” (page 9 of the present response, emphasis removed). However, the Examiner respectfully notes that the above-quoted limitations of Claim 7 are no longer present in the claim. Although the claims are interpreted in light of the specification, limitations

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from the specification are not read into the claims. See *In re Van Geuns*, 988

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, for the reasons detailed above, the Examiner maintains the rejections as set forth below.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 1 includes the limitation “at the time of mastering said copy-protected audio compact disc, selecting at least one audio data sample of the audio signal”, and Claim 7 includes the limitation “at least one uncorrectable erroneous data symbol produced when mastering the copy-protected compact disc”. There does not appear to be proper antecedent basis for these limitations in the specification as originally filed. See below regarding the rejection under 35 U.S.C. 112, first paragraph, for further detail.

Claim Objections

5. Claim 7 is objected to because of the following informalities:

Claim 7 ends with two periods. One period should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 7-9 and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 7-9 and 13 are directed merely to arrangements of data, although stored on a compact disc. Specifically, independent Claim 7 does not recite any structure for the disc, but only discloses data symbols, at least one of which is erroneous, and that there are error correction codewords associated with the data symbols, potentially including erroneous parity symbols. This only requires an arrangement of data on the disc but no particular structure for the disc itself. The arrangement of data does not meet the definition of a data structure and is not computer code. An arrangement of data is non-functional descriptive material, which is not statutory subject matter even if stored on a computer-readable medium. See MPEP § 2106.01.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-9, 12, and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to include the limitation “at the time of mastering said copy-protected audio compact disc, selecting at least one audio data sample of the audio signal”. There does not appear to be sufficient written description for any particular step being performed “at the time of mastering” in the application as filed. Although Applicant asserts that Figure 19 and the associated description in the present disclosure provide written description support for mastering (see page 8 of the present response), there is no explicit mention of a mastering process or step in the cited portion, and there is no further explanation provided of what is considered to provide support for “mastering”. See also MPEP § 2163.04(I)(B).

Claim 7 has been amended to recite the limitation “at least one uncorrectable erroneous data symbol produced when mastering the copy-protected compact disc”. Applicant has still not pointed out where the newly claimed subject matter is supported, nor does there appear to be a written description of the above claim limitations. In particular, there does not appear to be sufficient written description for producing symbols at the time of “mastering” the disc. As above, with reference to a related limitation in Claim 1, Applicant has asserted that Figure 19 and the associated description provide written description support for mastering; however, there is no

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explicit mention of a mastering process or step in the cited portion, and there is no further explanation or evidence provided as to what is considered to provide support for “mastering”. See also MPEP § 2163.04(I)(B).

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

10. The rejection of Claims 1-6 under 35 U.S.C. 112, second paragraph, as indefinite is withdrawn in light of the amendments to the claims. Claims 7-9, 12, and 13 remain rejected because the amendments to the claims have raised further issues of indefiniteness, as detailed below.

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 7-9, 12, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation “the audio signal” in lines 10-11 of the claim, and also refers to “the data symbols representing at least one digital sample”. There is not clear antecedent basis for these limitations in the claim, noting that the previous recitations of these limitations have been deleted from the claim.

Claim 12 recites “the C1 codeword associated with said each of said data symbols” in lines 7-9 of the claim. The phrasing of this limitation is generally awkward and unclear. It is not clear if there is one codeword that is associated with all of the data

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symbols or one codeword for each data symbol, for example. The claim further recites “a plurality of Q-parity symbols the C2 codeword associated with said each of said data symbols” in lines 10-11. First, there appears to be linking language missing between “symbols” and “the C2 codeword”. Further, the phrasing of the limitation is unclear as explained above; it is not clear if there is one codeword associated with all of the data symbols or one codeword for each data symbol, for example. Additionally, the claim recites “the C2 codeword” in line 17. It is not clear to which of the potentially plural C2 codewords this is intended to refer.

Claim 13 similarly recites “the C2 codeword” in line 14. It is not clear to which of the plural C2 codewords this limitation is intended to refer.

Claims not specifically referred to above are rejected due to their dependence on a rejected base claim.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-9, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Sinquin et al, US Patent 6425098.

In reference to Claim 1, Sinquin discloses a method for producing a copy-protected CD including selecting a data sample at the time of mastering (column 8, lines 11-28); locating symbols representing the sample, where the symbols have error-correction codewords associated therewith (column 9, lines 11-14); overwriting the symbol with erroneous symbols (column 9, lines 46-48); and disabling error correction of the error correction codewords associated with the symbols erroneous symbols, which includes altering at least one of a plurality of parity symbols in the codewords associated with the data symbols (column 10, line 60-column 11, line 33; see also column 3, line 58-column 4, line 9).

In reference to Claim 2, Sinquin further discloses that the sample is a concealable audio sample corresponding to linear interpolation of previous and subsequent samples (see column 9, lines 16-46; column 9, line 46-column 10, line 5).

In reference to Claim 3, Sinquin further discloses that the erroneous symbols are superimposed (column 8, lines 45-53; column 9, lines 46-48).

In reference to Claim 4, Sinquin further discloses selecting at least one sample from a sector in a group of sectors (column 9, lines 11-14).

In reference to Claims 5, 6, and 12, Sinquin further discloses that disabling the error correction further includes overwriting data symbols with an arbitrary erroneous symbol or erasure (column 10, line 60-column 11, line 19).

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Claims 7-9 and 13 are directed to articles of manufacture corresponding substantially to the methods of Claims 1, 5, 6, and 12, respectively, and are rejected by a similar rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571)272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Zachary A Davis/
Examiner, Art Unit 2437